



DISCOVER DEQ

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY NEWSLETTER



January 2022 Issue Number: 120

What's Inside?

LDEQ begins 2022 with personnel changes

Message from the Secretary

Black History Month

Boating operator course trains new operators

Gov. Edwards announces Task Force on Statewide Litter Abatement and Beautification to clean up Louisiana's litter problem

Southeastern University's Sustainability Center opens new entrance

LDEQ begins 2022 with personnel changes

Changes come with the New Year and LDEQ has had its share. Many familiar employees have retired but we are fortunate to have qualified employees to take their places.

In 2022, LDEQ has two new assistant Secretaries:

Celena Cage – Assistant Secretary for the Office of Environmental Compliance

Cage has been named as Assistant Secretary for the Office of Environmental Compliance. Cage filled the position formerly held by Lourdes Iturralde, who had worked for LDEQ for almost 31 years.

Cage began her career with LDEQ in 1993. She has more than 30 years environmental experience with 19 years of enforcement and/or compliance regulatory experience governing several media. She worked in various positions within LDEQ, including environmental scientist, supervisor, manager, senior scientist and Enforcement Division Administrator. Cage holds a Bachelor of Science degree in health science from Alcorn State University.



Celena Cage

Bliss Higgins – Assistant Secretary for the Office of Environmental Services

Higgins assumed the position of Assistant Secretary for the Office of Environmental Services. She replaces Elliott Vega, who served with LDEQ for more than 30 years.

Higgins, who previously served as Assistant Secretary of OES from 2000 to 2002, has more than 30 years of experience in environmental permitting, compliance, policy and program development and implementation. She began her environmental regulatory career at LDEQ in 1990, where she began as an entry-level Environmental Scientist, then served as Coordinator of the Air Toxics Section and Industrial Permits Group Manager. Higgins has provided environmental consulting services to a wide range of clients, including state agencies, parish and municipal governments, and regulated facilities.



Bliss Higgins

CONNECT WITH LDEQ



Subscribe to our monthly newsletter

Discover DEQ

Continued on page 2



DISCOVER DEQ

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY NEWSLETTER



January 2022 Issue Number: 120

During her initial tenure at LDEQ, Higgins was a leader in developing and implementing regulations establishing the Louisiana Comprehensive Toxic Air Pollutant Emission Control Program to achieve a 50% reduction in emissions of toxic air pollutants from 1987 levels by 1996. She went on to draft a comprehensive rewrite of Louisiana air permitting regulations to implement the federal requirements of the Title V Operating Permits Program, helping LDEQ achieve one of the first EPA-approved state Title V programs.

In addition, she coordinated the development of the Louisiana Toxic Emissions Data Inventory (TEDI), and later contracted with LDEQ to coordinate the development of the Emissions Reporting Inventory Center (ERIC), including extensive online query and reporting capabilities for easy public access to Louisiana criteria pollutant and toxic air pollutant emissions inventories.

Higgins led and participated in the Louisiana Chlorofluorocarbons (CFCs) workgroup, which drafted recommend legislation (subsequently adopted) to incentivize and reward the reduction of CFC use, the Louisiana Toxic Release Inventory task force, the Louisiana Accident Prevention Program advisory committee, and the LDEQ Small Business Assistance program development committee.

Higgins participated in numerous EPA workgroups to develop federal Maximum Achievable Control Technology (MACT) standards for source categories, Title V stakeholder groups, New Source Review Reform committees, and Federal Advisory Committees. As a consultant, she worked with state environmental agencies to develop plans and model rules for implementing EPA's New Source Review Reform regulations and for implementing EPA's Clean Power Plan.

Higgins is pleased to return to LDEQ as the Assistant Secretary of OES, and looks forward to making a positive contribution.

Tonya Landry - Administrator for the Public Participation and Permit Support Division in the Office of Environmental Services

LDEQ appointed Tonya Landry as Administrator for the Public Participation and Permit Support Division in the Office of Environmental Services. Landry replaces Cheryl Nolan, who retired after almost 31 years with the Department.

Landry earned a Bachelor of Science degree in animal science at the Louisiana State University. She began her career with the department as an Environmental Scientist and later became a supervisor in the Air Enforcement Division. When she moved to the Public Participation and Permit Support group, she served as the manager for the Permit Support Group.

The Public Participation and Permit Support Division (PPPSD) restructured, and Landry was named manager of the Notifications and Accreditations Group.

Landry was promoted and now serves as the administrator for PPPSD. LDEQ has three new regional managers:



Tonya Landry

Continued on page 3



DISCOVER DEQ

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY NEWSLETTER



January 2022 Issue Number: 120

Southeast Regional Office

Jeffrey Leonick – Regional Manager of the Southeast Regional Office

Leonick graduated from Southeastern Louisiana University in January 1993, earning a Bachelor of Science degree in biological science. He joined LDEQ in June 1994 and has worked in the Surveillance Division for 27 years. Leonick has held jobs as an inspector, supervisor and recently a Regional Manager in the Surveillance Division. He is now the regional manager for the Southeast Regional Office based in New Orleans, which also oversees a satellite office in Bayou Lafourche.

He enjoys hunting, fishing, boating and spending time with friends and family.



Jeffrey Leonick

Southwest Regional Office

Chrissie Gubancsik – Southwest Regional Office Manager

Chrissie Gubancsik is the new Southwest Regional Office Manager based in Lake Charles. She became Regional Manager in November 2021, succeeding longtime manager Billy Eakin.

Gubancsik attended Louisiana State University and earned a degree in environmental management systems with a concentration in policy analysis.

During her 19-year tenure with LDEQ Wallace spent two years in Waste Enforcement in Baton Rouge. She transferred to the Remediation Division in Lake Charles and then joined the newly created Underground Storage Tank Division (UST). Gubancsik served as a supervisor in UST from 2015 to 2021. She served as UST Supervisor for the Southwest Regional Office (SWRO) and the Acadiana Regional Office (ARO)

Gubancsik enjoys crafting and spending time with her husband of 20 years and four children, ages 18, 15, and 6 year old twins.



Chrissie Gubancsik

Capital Regional Office

April Wallace – Capital Regional Office Manager for the Surveillance Division

April Wallace became the Capital Regional Office Manager for the Surveillance Division on Oct. 18, 2021. Wallace earned a Bachelor of Science in chemistry from Grambling State University in May 1999. She joined LDEQ as an environmental scientist in the Surveillance Division/Office of Environmental Compliance in 2002. After working at the agency for four years, Wallace left to pursue a passion in the teaching profession. She returned to LDEQ in July 2009 as an environmental scientist in the Surveillance Division.

After 15 years as an environmental scientist/inspector, Wallace was promoted to Environmental Scientist 4 in February 2020 and then to an Environmental Scientist Supervisor in December 2020. Wallace has over 16 years of experience with the department.

LDEQ welcomes them to their new positions and wishes them continued success serving the citizens of Louisiana.



April Wallace



Message from the Secretary

Chuck Carr Brown, Ph.D.



Dr. Chuck Carr Brown

We are about to enter February, Black History Month. It's important to know some history to compare where we have been with where we are. We're in a better place, but still have plenty of work to do to ensure that all members of our society are presented with equal opportunities on a level playing field. That is true in education, economics, housing and every facet of life.

I want everyone to have a chance to show their talents. I want to exploit those talents for the good of the agency and the state of Louisiana. Since I have been Secretary, I've made diversity one of our priorities. Diversity makes our agency stronger.

I can't remember when I had a conversation without the word "Covid" coming up. It's just always there. We thought we had it beaten. Then along came Delta. It was pretty bad, but it too tapered off after a while. It looked like we were headed in the right direction. Then came Omicron, the most contagious variant so far. Luckily, Omicron seems to be a less severe variant than the others. That's small solace if you get it. You still have to quarantine, and if you haven't been vaccinated, you may have some pretty strong symptoms. You may even end up hospitalized.

We all know the drill by now: stay six feet apart, wear a mask, two to an elevator in the Galvez Building (masks required in elevators too), wash your hands frequently and/or use hand sanitizer. If you test positive, you have to quarantine (as directed by HR) and use Zoom for meetings. Work from home as much as is practical. Avoid crowds and crowded events. It's the world we live in. Will there be another variant? Medical professionals think it is likely. One thing can help – get the vaccine. I'm not telling you to do that, I'm asking for the rest of us.

Speaking of crowds, Mardi Gras is upon us. Parades are starting to roll. Use your judgment about attending but know there is a risk. Mardi Gras Day is March 1, so it will probably be nice weather for that last week or so. It's inviting to go to a ball or parade. Just be careful and wear a mask, a good one.

That's it for now. Everyone stay safe and watch out for each other out there.



January 2022 Issue Number: 120

Black History Month

By presidential designation, February has been Black History Month since 1976. Other countries, including Canada and the United Kingdom, also devote a month to celebrating Black history. According to the website **History.com**, it's a tradition that reaches back even further.

In September 1915, historian Carter G. Woodson and the Rev. Jesse E. Moorland founded the Association for the Study of Negro Life and History (ASNLH), an organization dedicated to researching and promoting achievements by Black Americans and other peoples of African descent. Known today as the Association for the Study of African American Life and History (ASALH), the group sponsored a national Negro History week in 1926, choosing the second week of February to coincide with the birthdays of Abraham Lincoln and Frederick Douglass. The observance remained in February when it became Black History Month.

Modern observances have focused on the towering figure of Dr. Martin Luther King, Jr., the spiritual leader who made Civil Rights the overriding issue of the 1950s and 1960s. It's appropriate to study and recall the contributions of great people who impacted American Society, but during this month, it's also informative to take a look at those individuals whose names are not in textbooks but who have and are making history on their own.



Celena Cage

Mississippi native Celena James Cage started working as LDEQ's Assistant Secretary for Environmental Compliance Jan. 3. Cage has been at LDEQ for 30 years, including more than 19 years in the compliance/enforcement area. As the agency's first black female to head the Office of Environmental Compliance, Cage knows a thing or two about making history.

"One reason I took this job was to give hope to the other black people here and other ethnic groups," Cage said. "I worked my way up through the environmental scientist job series by holding jobs as an environmental scientist, supervisor, manager and division administrator. This shows them that if you're qualified and dedicated, you can get it – this (being appointed as Assistant Secretary) is a realistic goal."

Growing up in Mississippi in the 1980s, Cage participated in Black History Month events in school. "Even in high school we observed Black History Month. There was a lot of focus on Black History Month, like dress up

events where you could dress up as your favorite character in Black History."

Cage went as Rosa Parks, a woman whose refusal to give up her seat to a white man on a Montgomery, Ala., bus in 1955 set off a string of bus boycotts across the South.

"They still do that," Cage said of the school programs and plays. "They focus on the history so people can learn about individuals they don't know about, to pay respect to people that have made contributions to Civil Rights like Dr. Martin Luther King, Jr., Harriet Tubman, Marcus Garvey and Madame C.J. Walker (who was born in poverty in Louisiana but became one of America's first black female millionaires)."

Continued on page 6



DISCOVER DEQ

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY NEWSLETTER



January 2022 Issue Number: 120

Because of the things they did, many gaps have been bridged and barriers eliminated for all people, especially African Americans,” Cage said. “So all people can be treated equally, receive equal education and opportunities.

“You can’t ignore the value and significance of Black History Month.”

April Wallace is the first black female to be named Manager of the Capital Regional Office in Baton Rouge. Three months into the job, Wallace feels the weight of history just as Cage does, she grew up listening to her father’s stories of the uphill fight black people had to endure to reach their goals in the 1980s and ’90s.

“Dad told me stories about South Baton Rouge,” Wallace said. “I do feel like people were still in some of those positions in the 1980s and 1990s,” she said, but things had shifted considerably by the time she came to work at LDEQ in 2002. In fact, her first supervisor was a black woman.

“Evita Lagard inspired me,” Wallace said. “She was my first supervisor at LDEQ. I learned from her work ethic and her approach to her job.”

Wallace put her nose to the grindstone and worked hard. Still, it was 15 years before she received her first promotion. The promotions came more quickly after that, first to Environmental Scientist 4, then Environmental Scientist Supervisor and finally to her current position as regional manager.



April Wallace

“Sometimes you have to wait for your opportunity. You have to wait your turn,” Wallace said. She realizes that in the past, opportunities sometimes never came for black women. “There have been some changes,” she said, “where there are more opportunities for black women to fill some of these roles.”

“You just have to work hard and be ready and keep in mind all that you have learned about Black History and how so many have overcome obstacles to pave the way and make things more attainable for everyone,” she said.

As Cage puts it, “We have to look at where we have been to decide where we are going.”



Boating operator course trains new operators

One facet of LDEQ's mission involves waterborne operations, when water insertion via boat is essential. Typically, this involves an environmentally related task such as water sampling or locating abandoned oil drums but has also embraced emergency response operations where lives must be saved.

During the Great Flood of 2016 in Baton Rouge, many LDEQ employees took to the waters to rescue citizens from residential homes and nursing homes – including a few who were wading through flooded streets. Well-known for using its boating assets to assist anyone in need in the aftermath of such weather-related events, each of LDEQ's regional offices has access to skiffs and Boston Whalers that are often used during emergency response.

"LDEQ water vessel operators are responsible for operating boats that range in size from 12-foot flat bottoms to 25-foot V-hulls, including mud boats and air boats," said Jimbo Earles, environmental scientist manager for LDEQ's Kisatchie Central Regional Office in Alexandria. "LDEQ uses boats to help achieve the missions of the department, and the protection of human health and the environment is carried out on land as well as various water bodies. We conduct the boater safety courses to ensure that the ultimate goal of safety is reached by all water vessel operators."

With waterborne operations, it is imperative that new operators are trained to replace those that may have retired or left the department. To help fill that void, a Louisiana Basic Boating Practicum course was held Dec. 2 at Lake Buhlow in Pineville, while a second course was held at the Ouachita River's Bawcomville Corps Launch in West Monroe. A total of eleven participants completed the training.

As a prerequisite, participants must complete a Louisiana Boating Safety Course and attain certification with the department as a boating passenger.

After the participants completed the requisite paperwork, Greenwood gave a safety brief that highlighted the importance of trailer safety checks. He emphasized checking the trailer tires and the proper connections on the trailer hookups – both important aspects of boat operator training. "Crossing the chains helps to secure the trailer should the hitch give way during travel," Greenwood noted. "It's also important to double-check the tie downs and use the coupler latch pin to secure the trailer to the truck's hitch as an added safety measure."

Upon ensuring the tail light connections were in place and the hitch lock and safety chains secured properly to the truck, each class participant sat behind the wheel and slowly backed the trailer hitch



Instructors Jimbo Earles (l) and David Greenwood observe a student properly positioning the boat into the water at the boat launch.



Boat operator participants get underway at Lake Buhlow in Pineville.

Continued on page 8



January 2022 Issue Number: 120



David Greenwood (r) discusses dockside maneuvers with LDEQ environmental scientist Nicholas Bent (l) at the start of the course.

down the boat launch. Physically doing this is the best way to get familiar with the nuances of setting a boat safely into the water, as many ramps can have sudden drop-offs and slippery, uneven surfaces. After successfully passing this test, participants donned life vests and split into two groups with each group assigned to a boat and an instructor. Each participant then got an opportunity to operate the vessel, getting familiar with the controls and noting the array of hazards often encountered while on the water.

Dockside maneuvers was the first operational test. Each participant had to berth the vessel safely and appropriately to a dock from both a port (left) and starboard (right) approach. Everyone then took turns navigating through a slalom course consisting of orange markers temporarily anchored into specific points along the lake. This culminated in a test on evasive maneuvers and how to avoid obstructions in the water.

"This course was helpful in imparting the safety measures needed for successful operation of a vessel," said Nicholas Bent, environmental scientist with LDEQ's Southwest Regional Office. "I found the course to be helpful in teaching the basics of how to operate a boat."

"It was a great way to work on boating skills, meet people from different areas of the department, and see a different region of the state. I enjoyed the training," said Kathryn Ribble, environmental scientist with LDEQ's Capital Regional Office.

Gov. Edwards announces Task Force on Statewide Litter Abatement and Beautification to clean up Louisiana's litter problem

On Jan. 18, Gov. John Bel Edwards joined statewide and local leaders to announce the creation of the Governor's Task Force on Statewide Litter Abatement and Beautification.

This Task Force will work to find policy solutions for Louisiana's litter problem, to educate the public and promote community litter abatement activities. The Task Force, created by executive order, will be managed by the Keep Louisiana Beautiful Program (KLB) in the Lieutenant Governor's Office. The 26-member Task Force will meet and make recommendations to the governor by July 1, 2022. The Louisiana Department of Environmental Quality will be a part of the Task Force.

In the Executive Order, Gov. Edwards also declared that the fourth Saturday of each month be designated as a Love the Boot - Don't Pollute Day across the state. On these Saturdays, officials, individuals and neighborhood groups will be encouraged to find ways and sponsor events to pick up litter in their communities.

"I am announcing a statewide effort to find solutions for Louisiana's litter problem, which is detrimental to health, safety, wildlife, economic development and tourism," Gov. Edwards said. "Our state is truly a beautiful place, the Sportsman's Paradise, but too often litter sullies Louisiana's landscape."

"Keep Louisiana Beautiful (who will be managing the program) was put under my office last legislative session. I look forward to working with the Governor's team, elected officials, civic organizations and every Louisiana ambassador who loves this great state," Lt. Gov. Billy Nungesser said.

Continued on page 9



DISCOVER DEQ

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY NEWSLETTER



January 2022 Issue Number: 120

“Keep Louisiana Beautiful is thrilled to work with the governor, the lieutenant governor and the task force to make a clean Louisiana a reality,” said Susan Russel, executive director of KLB. “The litter problem in Louisiana is huge and decades old. It cannot be solved simply by wishing or complaining. And it certainly cannot be solved on the backs of volunteers alone. We need attitudinal, behavioral and cultural changes for a clean Louisiana to be realized.”

This comprehensive effort to reduce and obliterate Louisiana’s litter problem and restore the State to its natural beauty will go a long way to accomplishing that goal.

To read the full executive order and information, go to

<https://gov.louisiana.gov/assets/ExecutiveOrders/2022/JBE20223StatewideLitterAbatement.pdf>

The 26 members of the Governor’s Task Force on Statewide Litter Abatement and Beautification will include:

- Lt. Gov. Billy Nungesser, chairman
- Gov. John Bel Edwards or his designee
- Dr. Steve Slaton, Lieutenant Governor’s Office
- Jay Dardenne, Commissioner of Administration, Division of Administration
- Secretary Chuck Brown, Department of Environmental Quality
- Secretary James LeBlanc, Department of Corrections or his designee
- Secretary Don Pierson, Department of Economic Development or his designee
- Secretary Shawn Wilson, Department of the Transportation and Development or his designee
- Secretary Jack Montoucet, Department of Wildlife and Fisheries or his designee
- Colonel Lamar Davis, Department of Public Safety and Corrections
- Chip Kline, Executive Assistant to the Governor for Coastal Activities
- Mayor Sharon Weston Broome, City/Parish of Baton Rouge, Louisiana Municipal Association
- Winn Parish President Josh McAllister, representing Police Jury Association of Louisiana
- Pointe Coupee Parish Sheriff René Thibodeaux, representing Louisiana’s Sheriffs Association
- Trent Brignac, Evangeline Parish District Attorney, representing the Louisiana District Attorneys Association
- Lisa Johnson, President and CEO of Bossier City Chamber of Commerce, representing the Louisiana Association of Chamber of Commerce Executives
- Faye Matthews, Environmental Defense Fund, representing Environmental Organizations
- Carla Tate, Executive Director, Tangipahoa Parish Convention and Visitors Bureau, representing Tourism Industry
- Sharon Mann, General Manager, Republic Services, representing Waste Management Industry
- Dr. Neil Aspinwall, Chancellor of SOWELA Technical Community College, representing Louisiana’s Higher Education System
- Dr. Teresa Bagwell, Superintendent of Schools in St. Mary Parish, representing the Louisiana Department of Education
- Adam Knapp, Chief Executive Officer, Baton Rouge Area Chamber, representing Chambers of Commerce
- Brenda M. Breaux, Executive Director, New Orleans Redevelopment Authority, representing local housing authorities
- Marie Constantin, representing homeowners’ associations
- Renee Amar, Executive Director, Louisiana Motor Transport Association, representing the trucking industry
- Mike Wampold, representing the construction industry



Southeastern University's Sustainability Center opens new entrance

As Louisiana's third-largest public university with approximately 15,000 students enrolled, Southeastern Louisiana University (SLU) prides itself on being a forward-thinking institution with a synergistic educational approach that includes sustainability concepts. SLU actively engages in initiatives on renewable energy, plant biology, recycling and waste reduction, and a host of sustainable technologies – all of which are evident anywhere you go on the campus.

At the heart of those endeavors is the Sustainability Center, located on the northeastern edge of the campus and part of SLU's Physical Plant. There, several pro-environmental concepts have been created, revised and put into action around the campus. Those cutting-edge ideas earned SLU an Environmental Leadership Award from LDEQ in 2019.

Located near the University Center, the Center's entrance allows for easier access for visitors and offers a welcome landmark in the form of a sunflower sundial, consisting of solar panels used as part of the artistic theme.

A fixture inside the Sustainability Center is Southeastern's Environmental Education Development (SEED) classroom, powered by a series of solar photovoltaic panels and a wind turbine that also generates power. The solar panels absorb the sun's rays, generating energy for the building. Also, a pond-loop geothermal system heats and cools the classroom space using heat-pump technology – more efficient than air-cooling heat pump behind your house.



*Photo courtesy of SLU
SLU Sustainability Manager Alejandro Martinez stands before the new design at the Sustainability Center's entrance. Fashioned as a PV Sunflower with a Tesla Wall and edible landscape, the design provides a welcoming icon for visitors.*



Solar panels at the Sustainability Center capture energy that helps to power the Center

Water from rain is collected to flush the toilet and irrigate the native and edible plants around the center. The walls inside the classroom display labyrinths of wires and pipes, valves and gauges and are all labeled to explain their contributing part to and within each system.

As a research lab, the Center allows students the opportunity to test various concepts. "The Sustainability Center is a tool for experimentation and learning," said Alejandro Martinez, SLU's Sustainability Manager. It also serves as a recruitment tool, as non-university attendees and students of all ages frequently visit the facility on field trips to learn about green practices, engineering controls, science, gardening and energy savings. "More than 1,200 visitors came to the Center in 2019," Martinez noted.

A major theme at the Center is the introduction of sustainable initiatives such as geothermal heating and cooling, solar thermal and solar photovoltaic panels, wind turbines, a biomass electrical generator, posit-solar lighting (pulling energy from solar panels,

Continued on page 11



The heliodon provides examples on how sunlight throughout the year reaches your location, and how to best capture and utilize the sun's rays to heat or cool your home or business.

thereby reducing stress on the electrical grid) and water reclamation. Students can receive an introduction to sustainable practices such as the LEED (Leadership in Energy and Environmental Design) program, while viewing the functional concepts of these efforts.

A unique tool featured in the Center is the heliodon, a model used to demonstrate how the angle at which sunlight strikes a structure can affect the heating/cooling of that structure. The heliodon rotates on up to three axes to indicate latitude, time of year and time of day. Through this, the heliodon displays how a house or building's position can impact its relationship to solar energy. By repositioning the light sources in relation to the model buildings on the heliodon's platform, the observer can visualize how the sun can play a part in how shadows and sunlight are cast against a house or building at various times of the year.

The heliodon is a great method to teach developers, builders, and architects the basic concepts that will allow them to design low-energy, solar-responsive buildings and communities. For example, when a house is being constructed, the specific location of the front door and windows will ultimately make a difference in how heat is captured. Using the heliodon to research the positioning of a home during the building process can significantly reduce the energy demand by harvesting the winter sun for heating while rejecting the summer sun to reduce the cooling load.

According to the Sustainability Center, buildings use about 50% of all the energy consumed in the United States. Buildings and homes use energy for lighting, heating and cooling, all of which are impacted by solar energy.

In addition to the community garden and greenhouses, the Center also supports campus-wide efforts such as composting and fertilizer creation, energy-efficient heating and air conditioning, LED lighting, specialized hand sanitation stations and eco-friendly water fountains. Recycling is popular, with at least 60 outdoor bins on campus that accept plastic, aluminum and paper – all transported to a Baton Rouge recycling facility each month.



The greenhouse next to the Sustainability Center serves as an educational tool and test model for experimenting with aquaponics and hydroponic technologies.

Of particular note is the Center's aquaponics model that uses waste produced by fish to fertilize plants. A test group of fish is fed and housed in circular tanks inside a greenhouse where the waste produced by the fish filters through a system that is transferred into adjacent plant beds housing kale, romaine lettuce and more than 30 other vegetables (known as the "edible landscape"). As nutrients are separated from the organic waste, they are washed into the plant beds, providing an organic-rich boost that promotes plant growth. "The same water is sent back into the fish tanks, completing a closed loop system," Martinez explained.

Continued on page 12



January 2022 Issue Number: 120

The Center also supervises pest and termite control practices for at least 121 live oak trees on campus in addition to the planting of protective vegetation surrounding the tree bases (designed to discourage human interference of the trees' growth processes).

"Sustainability is all about partnerships too," Martinez emphasized. A grant in the amount of \$8,000 from Keep Louisiana Beautiful paid for 1,900 water containers, four energy-efficient water stations and eight filters across campus that have enhanced the quality of life for students, faculty and visitors. SLU housing also distributed 3,000 plastic water containers to the students to promote plastic reduction and reuse. A recent upgrade to the Sustainability page on SLU's website has supported these efforts, particularly through a user-friendly sustainability map. Campus visitors or new students looking for the nearest water fountain or restroom can simply pull up the map on the Sustainability page and instantly find those locations.

Air purification in the buildings is another improvement, with the addition of air ionizers, which are present in every campus building. Depending on a building's size and human activity level, purification on campus is conducted through one of two systems (or a combination of both): the Vapor Hydrogen Peroxide (VHP) system and the Troffer system. The VHP system is used in food service and campus housing areas, as it is designed to continuously disinfect surface areas in a room while reducing airborne pollutants. For more high traffic locations such as the Student Union, lobbies, waiting areas and music rooms, the Troffer air system is used to filter and reduce airborne pathogens.



Several eco-friendly water fountains across campus serve as a reminder in promoting water conservation and water bottle reuse.



The geothermal system is continually monitored to ensure that the system is working properly.

To ensure that the ionization systems are working properly, Martinez frequently uses a hand-held IAQ Pro Smart air testing device to sample the air for any presence of CO₂, particulate matter and volatile organic compounds. To further reduce the carbon footprint, Martinez conducts his campus-wide visits on the only solar-powered golf cart at SLU, keeping one less gas-powered vehicle off of the campus.

Perhaps the campus' biggest success story is the geothermal system that is a major part of two new student dorms: Ascension Hall and Twelve Oaks Hall. At the start of the 2018-19 school year, more than 500 students moved into the new dorms, both of which include a state-of-the-art hybrid geothermal system consisting of 220 wells located 300 feet underground.

The system acts as a heat exchanger, where heat from the ground is used in the underground wells for cooling and heating. The energy is then distributed throughout the buildings through pipes set along a grid that allow for equal distribution. Geowater pumps use the earth's heat as a heat source during the winter, while storing the heat in the summer and spring. During those months, when cooling is needed, the process is reversed. The result is a sustainable, environmentally friendly and economical solution to temperature control.

Continued on page 13



DISCOVER DEQ

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY NEWSLETTER



January 2022 Issue Number: 120

This balance allows the system to provide efficient heating or cooling in the dorms throughout the year, regardless of the climate. The system ensures that ground and water temperatures stay relatively constant throughout the year, fluctuating between 60 to 80 degrees Fahrenheit. This results in a reduction of energy consumption, with each room being able to maintain its own temperature via the thermostat. In lieu of HVAC systems being overwhelmed during the summer and winter, the geothermal system removes much of that stress through natural means. This is projected to save 50% in energy expenses, significantly reducing heating and cooling costs. “Approximately \$127,000 is saved through these systems every year, which means that by 2023, the system is expected to have paid itself back,” Martinez noted.

On the educational side, students residing in the dorms receive information on how the geothermal system works, and the system serves as a learning lab for students majoring in various academic disciplines. As the first of its kind in Louisiana and the second largest system in the U.S., Martinez hopes the geothermal concept spreads to other campuses as they look to build new dormitories and structures.

“Sustainability is really about the three P’s – planet, people and prosperity,” Martinez said. “As students are educated about green practices, the planet benefits from any practices put to use, which in turn brings a profit in cost-savings. All three work together and have an impact on the overall betterment of our world.”

To schedule a free tour around the center contact sustainability@southeastern.edu or call 985-549-3333. For more information, visit the Sustainability website: www.southeastern.edu/sustainability

To view a YouTube video with further information on the system, visit: www.southeastern.edu/admin/phys_plant/green/geothermal/index.html





DISCOVER DEQ

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY NEWSLETTER



January 2022 Issue Number: 120

Louisiana Department Of Environmental Quality's Fourth Quarter Summaries

Fourth Quarter 2021 Enforcement Actions:

<http://deq.louisiana.gov/page/enforcement-actions>

Fourth Quarter 2021 Settlement Agreements:

<http://deq.louisiana.gov/page/enforcement-division>

Fourth Quarter 2021 Air Permits:

<http://deq.louisiana.gov/page/permits-issued-by-calendar-quarter>

Fourth Quarter 2021 Water Permits:

<http://deq.louisiana.gov/page/lpdes>

Fourth Quarter 2021 Quarter 2021 Solid and Hazardous Waste Permits:

<http://deq.louisiana.gov/page/waste-permits>

